CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM STATEMENT OF INVESTMENT POLICY

FOR

CURRENCY OVERLAY PROGRAM

August 15, 2005

This Policy is effective immediately upon adoption and supersedes all previous currency overlay program policies. This Policy incorporates Currency Overlay - Externally Managed and Passive Currency Overlay Program - Internally Managed.

I. PURPOSE

This document sets forth the investment policy ("the Policy") for the <u>Currency</u> Overlay Program ("the Program"). There are several components to the Program:

- 1. the static hedge ratio;
- 2. tactical management of the hedge ratio; and
- 3. implementation of the program through:
 - a) Externally Managed Program; and
 - b) Internally Passively Managed Program.

The static ratio has been determined to be 25% of the <u>Developed Markets</u> portion of the International Equity Program by the System's Investment Committee ("the Investment Committee").

This Policy defines the tactical management of the hedge ratio and the implementation of the program though Externally Managed and Internally Passively Managed approaches.

The design of this Policy ensures that the currency exposure of the California Public Employees' Retirement System's ("the System") international equity program is managed with prudence and care. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of international equity and other international investments.

This Policy will be the controlling document for Currency Overlay – Externally Managed (Attachment 1) and Passive Currency Overlay Program – Internally Managed (Attachment 2).

II. STRATEGIC OBJECTIVE

- A. Lower return volatility of the International Equity Program is the primary objective of the Program;
- B. Return is the secondary consideration;
- C. The Program should be able to hedge currency risk for other assets beyond International Equity;
- D. Protect the System's International Equity Program from incurring large currency losses during the near term (one-to-three years), at reasonable cost, with effective cash flow management in the settlement of <u>derivative</u> positions; and
- E. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law.

III. PERFORMANCE OBJECTIVE

The primary concern shall be risk control with a secondary objective of return. The benchmark is the fully hedged currency return of the developed markets portion of the Passive International Equity Index Fund.

There are three separate parts to the Program and the performance objectives are outlined below:

- A. The Tactical Management Program, with the goal of adding return, Staff will incrementally add value relative to the static 25% hedge ratio of International Equity;
- B. The <u>External Manager</u> Program, with the primary objective of risk reduction and secondary consideration of return, shall achieve results specific to the prevailing currency market environment as follows:
 - 1. In appreciating foreign currency environments, the Program shall seek to capture approximately 60% of currency gains; and
 - 2. In depreciating foreign currency environments, the Program shall seek to limit losses to no more than 3% below the fully hedged benchmark.
 - 3. In flat or trend less environments, the Program shall approximate the benchmark results.

C. Internally Passive Managed Program, with the primary objective of risk reduction: results shall approximate that of the benchmark, within +/– 50 basis points in a 12 month period.

IV. INVESTMENT APPROACHES AND PARAMETERS

A. Tactical Management Program

Approach

A staff committee (staff committee), consisting of the Chief Investment Officer (CIO), Senior Investment Officer Fixed Income, Senior Portfolio Manager Fixed Income and the Portfolio Managers of Currency and International Research will seek to identify macro trends based on fundamental factors that have a high probability of success. Studies indicate that observable economic factors known to affect currency markets include, but are not limited to interest rate differentials, trade deficits, GDP growth, inflation, monetary policy, fiscal policy and productivity. These economic factors work slowly over time; therefore the staff committee time focus will be over a cycle, typically 3 to 8 years. A shorter term approach does not always allow sufficient time for economic fundamentals to work their way though to be reflected in currency values. Therefore, it can be difficult for external managers to focus on long term inputs when those inputs can be overwhelmed by short term issues. The staff committee will seek to capitalize on the System's long term investment nature by focusing on the cyclical nature of developed currencies. The CIO would have veto power over any decision.

The variation of the hedge ratio shall be determined by considering the following:

- 1. The basis of the decision would be economic fundamentals which work over time:
- 2. Costs related to the hedge, particularly the cost of carry; and
- 3. Moves in the hedge ratio would only be made when convincing evidence exists for long term trends. Return on such decisions should be measured over a cycle, which is calculated in years. It is anticipated that there will be infrequent changes.

Parameters

The static hedge ratio is targeted at 25% of the Developed Markets portion of the International Equity assets. In accordance with the Investment Committee delegation, the staff committee may vary the

hedge ratio. (+/- 5% implying a range of 20 to 30% for the hedge ratio.) The staff committee will meet every three to six months and will adjust the hedge ratio only when there is overwhelming evidence supporting the change.

B. Investment Approaches – Implementation for External and Internal Strategies

Lower return volatility of the International Equity Program is the primary objective of the Program. This shall be accomplished through the partial hedging of the currency exposure in the developed markets portion of the System's Passive International Equity Index Fund. This partial hedge is currently targeted at 25% of Developed Markets portion of International Equity assets.

V. BENCHMARK

Tactical Management Program Benchmark will be the static 25% hedge of the Developed International Equity Exposure.

The Externally Managed Program Benchmark shall be the fully hedged benchmark and shall be a function of the International Equity Program as it may be implemented.

The Internally Managed Program Benchmark shall be the fully hedged benchmark and shall be a function of the International Equity Program as it may be implemented.

VI. GENERAL

Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on market-value basis, as recorded by the System's custodian.

VII. GLOSSARY OF TERMS

Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.

Attachment 1

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM STATEMENT OF INVESTMENT POLICY

FOR

CURRENCY OVERLAY - EXTERNALLY MANAGED

August 15, 2005

This Policy is effective immediately upon adoption and supersedes all previous externally managed currency overlay policies.

I. PURPOSE

This document sets forth the investment policy ("the Policy") for the Externally Managed Currency Overlay Program ("the Program"). The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and capturing opportunities as they may occur.

II. STRATEGIC OBJECTIVE

Lowering the return volatility of the International Equity Program is the strategic objective of the Program. This shall be accomplished through the partial hedging of the currency exposure in the developed markets portion of the System's Passive International Equity Index Fund. This partial hedge is currently targeted at 25%.

The Program shall employ techniques to balance risk reduction with hedging cost and cash flow management. Therefore, it is expected that only under rare circumstances shall the program result in a 100% hedged (zero currency volatility) exposure.

The Program shall be managed to accomplish the following:

A. Protect the System's International Equity Program from incurring large currency losses during the near term (one-to-three years), at reasonable cost, with effective cash flow management in the settlement of derivative positions; and

B. Consider solely the interests of the System's participants and their beneficiaries in accordance with California State Law.

III. RESPONSIBILITIES AND DELEGATIONS

- A. The **System's Investment Committee** ("Investment Committee") is responsible for approving and amending the Policy and delegates the responsibility for administering the Currency Overlay portion of the System to the Investment Staff through the Delegation of Authority (Delegation Nos. 89-13 and 95-50).
- B. The **Investment Staff's** ("the Staff") duties include, but are not limited to, the following:
 - 1. Developing and recommending the Policy to the Investment Committee:
 - Developing and maintaining a procedures manual, subject to periodic reviews and updates, outlining Staff operational procedures to be used in implementing this Policy;
 - 3. Implementing and adhering to the Policy;
 - 4. Recommending action concerning outside money management firm(s) ("Managers") retained under contract to implement the Program in accordance with the External Investment Manager and Currency Overlay Manager Monitoring Policy. Duties may include making recommendations with respect to changes in the Manager's contractual guidelines or regarding any other aspect the Staff considers pertinent; and
 - 5. Reporting to the Investment Committee, as needed, about the performance of the segment. Monitor the implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of Guidelines and Policies immediately and in writing to the Investment Committee. Reports to the Investment Committee shall include an explanation and appropriate recommendation(s) for corrective action.
- C. Each **Manager** is responsible for all aspects of portfolio management as set forth in each Managers' contract with the System and shall fulfill the following duties:
 - 1. Communicate with the Staff, as needed, regarding investment strategy and results. The Manager shall monitor, analyze, and evaluate performance relative to the agreed-upon benchmark;

- Coordinate with the System's master custodial bank to ensure that there is a clear understanding of the currency exposures of the underlying portfolio(s) through which overlay of the Program exists; and
- 3. Cooperate fully with the System's Staff, Custodian, and <u>General Pension Consultant</u> on requests for information.
- D. The **General Pension Consultant** shall monitor and evaluate the Managers' performance relative to the benchmark and Policy. The General Pension Consultant shall report to the Investment Committee quarterly in accordance with its contract.

IV. PERFORMANCE OBJECTIVES

The Currency Overlay Program controls risk rather than generate return. The Program shall achieve results specific to the prevailing currency market environment as follows:

- A. In appreciating foreign currency environments, the Program shall seek to capture approximately sixty (60) percent of currency gains;
- B. In depreciating foreign currency environments, the Program shall seek to limit losses to no more than three (3) percent below the fully hedged benchmark; and
- C. In flat or trendless environments, the Program shall approximate the benchmark results.

V. INVESTMENT APPROACHES AND PARAMETERS

A. Approach

- 1. The risk and return characteristics of the international equity assets subject to the Currency Overlay Program (hedged assets) shall differ significantly from the portion of the international equity assets outside the program. Therefore, different strategic risk and return assumptions shall be developed for the Program for asset allocation planning purposes, in accordance with the Strategic Asset Allocation Policy, incorporated herein by reference. The specific allocation of assets subject to the Currency Overlay Program shall be determined by the financial analysis prescribed under the Strategic Asset Allocation Policy and shall vary within ranges prescribed therein.
- 2. Execution of the Currency Overlay Program shall occur through a portfolio(s)' investments in developed markets where currency market exposure is relatively predictable. Portfolios most suitable

- are passive index funds or semi-active approaches.
- 3. The Program shall be implemented through the retention of an external manager(s). The external manager selection shall occur in accordance with Section V.B. of this Policy.
- 4. The viability of the program shall be reviewed continually, with a formal review at least every five years.

B. **External Manager Selection**

- 1. The System shall retain Manager(s) recognized for their expertise in Currency Overlay Programs with a multiple-manager structure and in approved derivative management. The Manager(s) shall be registered, or appropriately exempt from registration, with the Securities and Exchange Commission.
- 2. Manager(s) shall be selected in accordance with the System's Contract and Procurement Policy.

C. Investment Parameters

- 1. The Manager(s) shall operate under a set of specific guidelines outlining their investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities and procedures, and performance objectives representative of their strategic role within the Program and the investment risk incurred.
- 2. Implementation of this Program shall comply at all times with the System's investment policies including, but not limited to, the following criteria:
 - Statement of Policy for Derivatives External Managers;
 - b. External Investment Manager and Currency Overlay Manager Monitoring Policy; and
 - c. Manager-Specific Investment Management Guidelines.
- 3. Manager(s) shall execute currency transactions over the long currency positions of the underlying portfolio(s) of assets assigned to them. These currency positions may be executed in either the forward currency markets or in related currency derivative instruments, subject to the policies specified in Section V.C.2. At no time shall Manager(s) assume any foreign equity positions in their own accounts.
- 4. The Manager(s) shall monitor their currency positions to avoid leverage regarding the net currency exposure of the underlying portfolio through a net long position in foreign currency forwards or a net short position once the hedge and the underlying portfolio are combined. Currency positions taken shall constitute a designated hedge of the actual international assets identified in

the underlying portfolio.

VI. BENCHMARK

The benchmark for the Program shall be fully hedged and shall be a function of the International Equity Program as it may be implemented.

VII. DERIVATIVES AND LEVERAGE POLICY

A. Forwards, Options, and Swaps.

- 1. Leverage shall be avoided as cited in Section V. C. 4
- 2. The Portfolio may buy or sell non-exchanged traded derivatives, which includes <u>over-the-counter</u> forwards, <u>options</u>, and <u>swaps</u>.
- 3. Bona fide hedging of foreign currency exposure is the only acceptable strategy.

B. Restrictions and Prohibitions

Any action or transaction not expressly permitted by this Policy is prohibited unless presented to and approved by the Investment Committee.

C. Counterparty Exposure for Forwards, Options, and Swaps

The counterparty exposure shall be integrated and managed with existing System counterparty exposures.

Transactions shall be executed with counterparties <u>rated</u> A- (<u>Standard & Poor's</u>), A- (Fitch) or A3 (<u>Moody's</u>) or higher by at least 2 of 3 rating agencies.

VIII. GENERAL

Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on market-value basis, as recorded by the System's custodian.

IX. GLOSSARY OF TERMS

Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.

Attachment 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM STATEMENT OF INVESTMENT POLICY

FOR

PASSIVE CURRENCY OVERLAY PROGRAM - INTERNALLY MANAGED

August 15, 2005

This Policy is effective immediately upon adoption and supersedes all previous internally managed passive currency overlay program policy.

I. PURPOSE

This document sets forth the investment policy ("the Policy") for the Passive Currency Overlay Program - Internally Managed ("the Program"). The design of this Policy ensures that the currency exposure of the California Public Employees' Retirement System's ("the System") international equity program is managed with prudence and care. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of international equity.

II. STRATEGIC OBJECTIVES

The Program shall be managed to accomplish the following:

- A. Reduce the System's International Equity Program's risk due to currency volatility; and
- B. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law.

The Program should be flexible enough to hedge currency risk for other assets beyond International Equity; with consistent goals as outlined for International Equity, except that the hedge ratio may be up to 100% of the underlying assets.

III. RESPONSIBILITIES AND DELEGATIONS

A. The **System's Investment Committee** ("the Investment Committee") is responsible for approving and amending the Policy. The Investment Committee delegates the responsibility for administering the Program through the Delegation of Authority (Delegation Nos. 89-13 and 95-50).

- B. The **System's Investment Staff** ("the Staff") duties include, but are not limited to, the following:
 - 1. Developing and recommending the Policy to the Investment Committee:
 - 2. Developing and maintaining procedures manual, subject to periodic reviews and updates, outlining Staff operational procedures used in implementing this Policy;
 - 3. Implementing and adhering to the Policy;
 - 4. Recommending changes to the Program, it's guidelines or management practices, which are pertinent to ensure the continual achievement of the Program's objective;
 - 5. Reporting to the Investment Committee, quarterly and more often as needed, about the performance of the Program. The Staff shall monitor the implementation of, and compliance with, the Policy. The Staff shall report concerns, problems, material changes, and all violations of Guidelines and Policies immediately and in writing to the Investment Committee. Reports made by the Staff to the Investment Committee shall include explanations of the violations and appropriate recommendations for corrective action;
 - 6. Communicating with other Staff, as needed, regarding investment strategy and investment results;
 - 7. Monitoring, analyzing, and evaluating performance relative to the agreed upon benchmark:
 - 8. Coordinating with the portfolio manager of the underlying equity portfolio and the System's master custodial bank to ensure that a clear understanding of the currency exposures of the underlying portfolio(s) exists with which the Program is overlayed; and
 - 9. Cooperating fully with other System Staff, the System's custodian, and General Pension Consultant on requests for information.
- C. The **General Pension Consultant** (the "General Pension Consultant") is responsible for monitoring and evaluating the Program's performance relative to the benchmark and Policy. The General Pension Consultant shall report to the Investment Committee on a quarterly basis, in accordance with its contract.

IV. PERFORMANCE OBJECTIVE

The Program shall control risk rather than generate return. The Program shall reduce risk versus the volatility of the underlying equity portfolio. Results shall approximate that of the benchmark, within +/- 50 basis points in a 12-month period. The benchmark is the fully hedged currency return of the developed

markets portion of the Passive International Equity Index Fund - Externally Managed.

V. INVESTMENT APPROACHES AND PARAMETERS

A. Investment Approaches

- 1. The allocation to the Program shall represent a portion of the Total Currency Overlay Program. The percent of assets allocated to the Program shall be determined by considering the following:
 - a. Cost versus expected attained risk reduction versus other alternatives; and
 - b. Optimal impact to the overall Currency Management Program.

The Staff shall conduct the appropriate analyses to support such a recommendation.

- 2. The target underlying international equity portfolio subject to the Program shall be the developed markets portion of the externally managed passive international equity index fund where the currency exposures of the equity portfolio are stable.
- 3. Staff will maintain an Operational Procedures Manual.
- 4. The viability of the Program shall be reviewed continuously.

B. Specific Parameters

- 1. The Program shall be passively-managed, meaning that the currency exposures represented in the designated portion of the underlying equity portfolio shall be as close to 100% hedged as operationally and cost effectively as possible.
- 2. The Program shall track a fully hedged benchmark that reflects the specific currencies of the underlying equity portfolio as specified in Section V. A. 2. of this Policy.
- 3. The Program shall execute currency transactions over the long currency positions of the underlying portfolio(s) of assets assigned to it. These currency positions may be executed in the forward currency markets or in related currency derivative instruments, subject to the policies specified in the Statement of Derivatives Investment Policy. The actual currency positions may include all currency exposures of the equity portfolio or a tracking basket, whichever is consistent with risk reduction and cost effectiveness.
- 4. The Program shall monitor its currency positions to avoid leverage. Currency positions taken shall constitute a designated

- hedge of the actual international assets identified in the underlying portfolio.
- 5. The System shall allow wider tracking error should there be deliberate decisions to redefine the developed markets portion of the externally-managed passive international equity index fund. This would include but not be restricted to the entry/exit of individual countries or the major rebalancing of country weightings within the Index.
- 6. The Program may include other portfolios or other currency functions as they relate to the System without prior Investment Committee approval. Hedging activity in other asset classes shall be determined by the respective SIO, and implemented by the internal currency team.
- 7. Implementation of this Program shall comply at all times with the System's investment policies including, but not limited to, the following:
 - a. Statement of Derivatives Investment Policy; and
 - b. Internal Program Operation Procedures Manual

VI. BENCHMARK

The benchmark for the program shall be fully hedged and a function of the International Equity Program as it may be implemented.

VII. GENERAL

Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System.

VIII. DERIVATIVES AND LEVERAGE POLICY

A. Forwards, Options, and Swaps

- 1. Leverage shall be avoided as cited in Section V. B. 4.
- 2. The Portfolio may buy or sell non-exchanged traded derivatives, which includes over-the-counter forwards, options, and swaps.
- 3. Bona fide hedging of foreign currency exposure is the only acceptable strategy.

B. Restrictions and Prohibitions

Any action or transaction not expressly permitted by this Policy is prohibited unless presented to and approved by the Investment Committee.

C. Counterparty Exposure for Forwards, Options, and Swaps

- 1. The counterparty exposure shall be integrated and managed with existing System counterparty exposures.
- 2. Transactions shall be executed with counterparties rated A-(Standard & Poor's), A- (Fitch) or A3 (Moody's) or higher by at least 2 of 3 rating agencies.

IX. GLOSSARY OF TERMS

Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.